Amendments to the Specification:

Please replace the paragraph beginning at page 1, line 21, with the following amended paragraph:

Different conductor structures are used in the structures of electronic devices. The higher the frequencies used in the devices, the greater the requirements set for the conductor structures used, so that the attenuation caused by the conductor structures does not become too high or that the conductor structure used does not disturb other parts of the apparatus by radiation. The designer of the device can select from many possible conductor structures. Depending on the application, an air-filled waveguide made of metal, for example, can be used. The basic structure, dimensions, and waveforms that can propagate in the waveguide and the frequency properties of the waveguide are well known (see e.g. chapter 8 Fields and Waves in Communication Electronics, Simon Ramo et al., John Wiley & Sons, inc., USA). Fig. 1 shows, as an example of the dimensioning of a waveguide, a rectangular waveguide made of conductive material, the width of which is **a** in the direction of the x-axis of the coordinates shown in the figure, the height of which is **b** in the direction of the y-axis, and which is filled by air, [~~whereby its~~] whose permittivity ε_r is of magnitude 1. In the air-filled waveguide shown in Fig. 1, the first (lowest) waveform that can propagate in the direction of the z-axis is the so-called TE_{10} (Transverse-electric) waveform. The electric field E of this waveform does not have a component in the direction of the z-axis at all. Instead, the magnetic field H has a component in the direction of propagation, the direction of the z-axis. The so-called cut-off frequency f_c of the waveform TE_{10}, which means the lowest frequency that can propagate in the waveguide, is obtained from the equation:

$$f_{cTE_{10}} = {}^{c}\!/_{2a}$$

where the letter **a** means the width **a** of the waveguide in the direction of the x-axis, and **c** is the speed of light in a vacuum. Generally, the usable frequency range of the waveguide is 1.2 to 1.9 times the cut-off frequency of the waveform in question. The usable lower limiting frequency is

determined by the growth of the attenuation when the cut-off frequency f_c is approached from above. The upper frequency limit again is determined by the fact that with frequencies that are more than twice the cut-off frequency f_c of the desired waveform, other waveforms that are capable of propagating are also created in the waveguide, and this should be avoided.

Please replace the paragraph beginning at page 4, line 20, with the following amended paragraph:

Figure 1 shows a [~~an~~] prior art, air-filled waveguide made of conductive material,

Please replace the paragraph beginning at page 5, line 15, with the following amended paragraph:

Figure 1 was presented in connection with the description of the prior art. In connection with the description of Figures 2 to 6, reference is made to the directions of the axes x, y and z shown in Figure 1. The directions of the axes are the same as those shown in the example of Fig. 1, although the axes are not drawn in all the figures. The symbol ε_r in this and the following figures refers to the particular value of permittivity which the materials marked "ε_r" have, i.e., all the ceramic material is labeled "ε_r" to indicate they all have the same permittivity.

Please replace the paragraph beginning at page 5, line 20, with the following amended paragraph:

Figure 2 shows an example of a waveguide according to the first embodiment of the invention, implemented with the multilayer ceramic technique. The structure shown in Fig. 2 is part of a larger circuit structure implemented with the multilayer ceramic technique, which is not shown in its entirety in the drawing. The waveguide structure is surrounded on both sides by the structures 21 and 27 shown in the drawing, which consist of several green tapes. The permittivity ε_r of the ceramic material used in them is clearly higher than the permittivity of air, which is of the magnitude 1, as is well known. Other parts of the structure, which are both above and below

the waveguide structure shown in the drawing, viewed in the direction of the y-axis, consist mainly of the same ceramic material. The core part 23 of the waveguide consists of the same ceramic material as the rest of the circuit structure. The width of the waveguide in the direction of the x-axis is limited by air-filled cavities 22 and 26 essentially in the direction of the yz plane. The interface of the air-filled cavity 22 or 26 forms a discontinuity of the characteristic impedance against the core part 23 in view of the electromagnetic wave front. This discontinuity of the characteristic impedance mainly reflects the wave front, which is capable of propagating in the core part 23 of the waveguide, back to the core part 23, while the wave front propagates in the direction of the z-axis. The waveguide is limited in the xz-plane by a first surface 24 and a second surface 25, which are made of some conductive material and which form essentially parallel planes. These planar surfaces 24 and 25 can be made either such that they completely cover the core part 23 or they are partly gridded. These planar, conductive surfaces 24 and 25 can be made, for example, of conductive pastelike material, by metallizing the surfaces of the core part 23 in these planes or also by covering the core part 23 by separate, thin, conductive filmy material.

Please replace the paragraph beginning at page 10, line 4, with the following amended paragraph:

Figure 6b shows an example of another way of joining a waveguide according to the invention to another electric circuit. The figure shows a section in the yz plane of the point where the transmission lines are connected. The circuit structure of the component has been implemented by joining together several layers of ceramic plates 61b. The exciting signal is brought to the waveguide by means of a cylindrical probe 63b. In the example of the drawing, the probe comes to the waveguide 68b through the first plane 62b, which forms the upper surface of the waveguide, and a hole 69b made in the plane. Thus the probe 63b does not have a galvanic connection to the conductive first plane 62b. The probe 63b itself may reach through several ceramic circuit structures in the direction of the y-axis of the drawing, when required. The impedance mismatch created at the feeding point of the signal is reduced by a quarter-wave ($\lambda/4$) transformer 67b of the kind described in connection with Figure 6a. The quarter-wave ($\lambda/4$) transformer 67b consists of conductive plane surfaces 66b, which are connected to each other in

the direction of the y-axis of the drawing by vias 64b made of conductive material. In the direction of the x-axis of the drawing, these planes 66b reach across the whole core part of the waveguide. The second plane 65b forms the lower surface of the waveguide. The electric properties of the ceramic material used in the structure are similar in all parts of the circuit structure in the example of the drawing.